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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,648	11/04/2003	Naoya Ishikawa	953.1012	5367

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EXAMINER

TRIEU, THAI BA

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/699,648	Applicant(s) ISHIKAWA, NAOYA	
	Examiner Thai-Ba Trieu	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/29/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the Amendment filed on June 29, 2004. Applicant's cooperation in correcting the informalities in the Abstract is appreciated. Claims 1-3 and 5 were amended, and claims 6-8 were added. In view of newly discovery prior art, the indicated allowable subject matter of claims 3 and 5 has been withdrawn. A new Non-Final rejection set forth below.

Priority

Applicant is required to submit a certified copy of Prior Foreign Application No. JP 2002-332369, filed on November 15, 2002, which has been claimed in the Declaration.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, in claim 5, lines 4-5, and claim 8, lines 5-6, applicant claims that "a second EGR passage **for recirculating a part of the exhaust gas from the downstream side of said turbine** to the upstream side of said compressor", while in claim 5, lines 10-11, and claim 8, lines 7, applicant claims that "**an inlet of said second EGR passage is arranged at the upstream side of said turbine** instead of being arranged at the downstream side of said turbine". These recitation render the claim indefinite, since it is not clear that how can the second EGR passage

be used for recirculating a part a part of the exhaust gas from the downstream side of said turbine, which has a second EGR passage inlet being arranged at the upstream side of said turbine?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-4 and 6-7 are rejected under 35 U.S.C. 102(a) as being anticipated by Minami (Pub. Number 2002-276405 A).

Regarding claims 1-4, Minami discloses an EGR system for an internal combustion engine (2) with a turbocharger (8), comprising a first EGR passage (Not Numbered, Read as a passage including valve 21) for recirculating a part of the exhaust gas from the upstream side of a turbine (81) of the turbocharger (8) to the downstream side of a compressor (82) of the turbocharger, wherein a second EGR passage (24) for recirculating a part of the exhaust gas from the downstream side of said turbine (81) to the upstream side of said compressor (82), a diesel particulate filter (13) arranged in EGR passage, a flow control means (21) for controlling the exhaust gas in said first EGR passage (Read as a passage including valve 21) and said second EGR passage (24), an exhaust gas purifying apparatus (14), an EGR control means (25) for controlling the flow control means based on data detected by an exhaust gas state monitoring

means are provided, and the second EGR passage being branched out on an upstream side of the exhaust gas purifying apparatus (See Figure 1, Paragraphs from [0025] to [0028]);

Wherein the flow control means being composed of the first EGR valve (21) arranged in said first EGR passage and the second EGR valve (25) arranged in said second EGR passage, and the EGR control means (10) controls the exhaust gas flow by controlling said first EGR valve (21) and said second EGR valve (25) to be open/closed said exhaust gas state monitoring means being composed of an exhaust gas temperature sensor arranged in said exhaust passage, and the EGR control means controls the exhaust gas flow by controlling said first EGR valve and said second EGR valve to be open/closed based on the exhaust gas temperature detected by the exhaust gas temperature sensor (See Figure 1, and Paragraphs [0012] and [0013]);

wherein when said exhaust gas detection temperature is not higher than the regeneration temperature of said diesel particulate filter, said first EGR valve is controlled to be open, while said second EGR valve is controlled to be closed, and when said exhaust gas detection temperature is higher than the regeneration temperature of said diesel particulate filter, said second EGR valve is controlled to be open (See Paragraphs [0012], [0013], [0014], [0015], [0016], and [0017]);
and

wherein said diesel particulate filter (13) is composed of a diesel particulate filter with an oxidation catalyst (12) (See Figure 1, Paragraph [0007]).

Regarding claim 6, Minami discloses an EGR system for an internal combustion engine with a turbo-charger (8) having a turbine (81) and a compressor (82) driven by the turbine (81), comprising:

a first EGR passage (Read as a passage including valve 21) to recirculate a portion of exhaust gas of the engine from an upstream side of the turbine (81) to a downstream side of the compressor (82) (See Figure 1);

a second EGR passage (24) to recirculate a portion of the exhaust gas from a downstream side of the turbine (81) to an upstream side of the compressor (82) (See Figure 1), and

an exhaust gas purifier apparatus (14), the second EGR passage (24) being branched out on an upstream side of the exhaust gas purifier (14) (See Figure 1).

Regarding claim 7, the method as claimed would be inherent during the normal use and operation of Minami device as disclosed (See Figure 1 and Paragraphs [0012], [0013], [0014], [0015], [0016], and [0017]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minami (Pub. Number 2002-276405 A), in view of Yasuma et al. (Patent Number JP 05-071428 A).

Minami discloses the invention as recited above; however, fails to disclose an inlet of the second EGR passage being arranged at the upstream side of said turbine.

Yasuma teaches that it is conventional in the turbocharged internal combustion engine art, to utilize an inlet of the second EGR passage being arranged at the upstream side of said turbine (via 33, 14, 30, 29, 31, 26, 8) (See Figure 3).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized an inlet of the second EGR passage being arranged at the upstream side of said turbine, as taught by Yasuma, to improve the reduction of exhaust emissions, in the Minami diesel engine.

Response to Arguments

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The IDS (PTO-1449) filed on June 29, 2004 has been considered. An initialized copy is attached hereto.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Miyamoto et al. (Pub. Number JP 2002-188524 A) disclose an EGR control device for a turbocharged engine.

- Yamagata et al. (Pub. Number 11-210449 A) disclose a turbocharged engine.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (703) 308-6450. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB
August 31, 2004


Thai-Ba Trieu
Patent Examiner
Art Unit 3748